

**CLAIMS**

1. A method for controlling an inter-working function linked with an ATM transport network, characterised in that said inter-working  
5 function uses a user defined information element of an existing protocol, that is used for establishing the data transport bearers, to adapt a new protocol for controlling the transport bearers in the Transport Network Layer.
- 10 2. The method according to claim 1, characterised in that transport related information is conveyed in said user defined information element.
3. The method according to claim 2, characterised in that said transport related information in-  
15 cludes at least one of the following information: transport network layer address information, transport network layer resource information, Transmission Time Interval of the transport network layer user, packet size information and Quality of Service information
- 20 4. The method according to claim 1, characterised in that said ATM transport network is used in Radio Access Network; and that said existing protocol is ALCAP protocol based on AAL2 Signalling.
5. The method according to claim 4, character-  
25 a characterised in that said AAL2 signalling is based on ITU Recommendation Q.2630.
6. The method according to claim 5, character-  
a characterised in that as said user defined information element of an existing ALCAP protocol is utilised  
30 a Served User Transport (SUT) Element of said Q.2630 signalling.
7. The method according to claim 1, character-  
a characterised in that using said user defined information element in said new protocol for conveying in-  
35 formation needed by said existing ALCAP protocol.
8. The method according to claim 1, character-  
a characterised in that including said user defined

information element in the Establish Confirm message of said existing ALCAP protocol.

9. The method according to claim 1, characterised in that including said user defined information element in the Establish Request message of said existing ALCAP protocol.

10. The method according to claim 2, characterised in that when receiving an address information of an Radio Access Network node, the check is made whether said address information is compatible with an address space of receiving protocol, and if said address information is not compatible,

the address of said inter-working function is determined.

11. The method according to claim 10, characterised in that the address of said inter-working function is determined by default for each network node.

12. The method according to claim 10, characterised in that the address of said inter-working function is queried from a centralised location in said network.

13. The method according to claim 10, characterised in that the address of said inter-working function is determined based on a physical port from which Application Protocol message was received.

14. The method according to claim 10, characterised in that the address of said inter-working function is determined based on a logical port from which Application Protocol message was received.

15. The method according to claim 10, characterised in that said check is made using a type of address information field that indicates at least one of the following set including, the type

of a network node, a type of address and a type of Transport Layer.

16. The method according to claim 10, characterised in that said check is made using a type of node information field that indicates at least one of the following set including, the type of a network node, a type of address and a type of Transport Layer.

17. The method according to claim 7, characterised in that said check is made using a type of transport layer information field that indicates at least one of the following set including, the type of a network node, a type of address and a type of Transport Layer.

18. The method according to claim 1, characterised in that mapping between the first interface of said existing protocol and the second interface of said new protocol is made in said inter-working function based on information in said user defined element.

19. The method according to claim 1, characterised in that said inter-working function is implemented as a stand-alone node in said ATM transport network.

20. The method according to claim 1, characterised in that said inter-working function is implemented as a stand-alone node in a transport network.

21. The method according to claim 1, characterised in that said inter-working function is implemented as a part of a network node in said ATM transport network.

22. The method according to claim 1, characterised in that said inter-working function is implemented as a part of a network node in a transport network.

23. The method according to claim 20 or 22, characterised in that said transport network is based on IP network.

24. A System for controlling an inter-working  
5 function linked with an ATM transport network, characterised in that said inter-working function comprises

a mapping entity that is arranged to use a user defined information element of an existing proto-  
10 col, that is used for establishing the data transport bearers, to adapt a new protocol for controlling the transport bearers in the Transport Network Layer.

25. The system according to claim 24, characterised in that said ATM transport net-  
15 work is used in Radio Access Network; and that said existing protocol is ALCAP protocol based on AAL2 Signalling.

26. The system according to claim 25, characterised in that said AAL2 signalling is  
20 based on ITU Recommendation Q.2630.

27. The system according to claim 26, characterised in that as said user defined information element of an existing protocol is utilised a Served User Transport (SUT) Element of said Q.2630  
25 signalling.

28. The system according to claim 24, characterised in that the system further comprises

a checking entity for making a check whether  
30 an address information is compatible with an address space of receiving protocol, when receiving an address information of an Radio Access Network node; and

an address determining entity for determining the address of the said inter-working function.